

[0066] CLAIMS

What is claimed is:

1. A method comprising:

servicing a Web request from a Web application;

detecting the occurrence of an event in the servicing of the Web request; and

logging an entry in a trace log, wherein the entry includes:

information descriptive of the occurrence of the event in the servicing of the

Web request; and

an Identifier (ID) corresponding to the Web request.

2. The method as defined in Claim 1, wherein the logging of the entry in the trace

log further comprises determining which of the information that is descriptive of the

occurrence of the event in the servicing of the Web request to put into the entry as a function

of a predetermined level of verbosity.

3. The method as defined in Claim 1, wherein the entry is logged in the trace log

during the servicing of the Web request only when the event is selected from the group

consisting of:

the event occurs within the context of a predetermined Universal Resource Locator (URL);

the event pertains of the functionality of authentication;

the event pertains of the functionality of security;

the event pertains of the functionality of compression;

the event pertains of the functionality of a Common Gateway Interface (CGI);

the event pertains of the functionality of one or more filters; and

the event is a predetermined event.

4. The method as defined in Claim 1, wherein:

the entry is logged in the trace log during the servicing of the Web request only when the event pertains to a predetermined filter; and

the information includes data going into the predetermined filter and data coming out of the predetermined filter.

5. The method as defined in Claim 1, wherein:

the servicing of the Web request from the Web application comprises executing the Web application that is running on or interfacing with a server that is servicing the Web request;

the detecting of the occurrence of the event in the servicing of the Web request comprises detecting the occurrence of the event in the execution of the Web application that is running on or interfacing with the server; and

the information descriptive of the occurrence of the event in the servicing of the Web request comprises the occurrence of the event in the execution of the Web application.

6. The method as defined in Claim 1, wherein at least one of the detecting and the logging are performed by one or more components of the operating system of a server.

7. The method as defined in Claim 6, wherein:

the server services the Web request from the Web application;

the operating system of the server includes one or more Application Program Interfaces (APIs);

the Web application is executed by, or interfaces with, the server;

the Web application interfaces with at least one said API to log a Web application event as a Web application entry in the trace log;

the Web application event occurs within the Web application itself; and

the Web application entry includes:

information descriptive of the occurrence of the Web application

event in the servicing of the Web request by the server when the Web

application is running on, or interfacing with, the server; and

the ID corresponding to the Web request.

8. The method as defined in Claim 1, wherein:

a server having an operating system services the Web request from the Web application; and

at least one of the detecting and the logging are performed by one or more server applications that are executed by the server.

9. The method as defined in Claim 8, wherein:

the server services the Web request from the Web application;

the operating system of the server includes one or more APIs;

the Web application is executed by, or interfaces with, the server;

the Web application interfaces with at least one said API to log a Web application event as a Web application entry in the trace log;

the Web application event occurs within the Web application itself; and

the Web application entry includes:

information descriptive of the occurrence of the Web application

event in the servicing of the Web request by the server when the Web

application is running on, or interfacing with, the server; and

the ID corresponding to the Web request.

10. The method as defined in Claim 1, wherein the logging of the entry in the trace log is in response to the detecting of the occurrence of the event in the servicing of the Web request.

11. The method as defined in Claim 1, further comprising generating a report containing at least a portion of the information in each said entry for which the ID in the entry matches a supplied ID.

12. The method as defined in Claim 11, wherein:

each said entry is in a binary format; and

the generating of the report further comprises using an ID corresponding to each said event to map the binary format of each said entry into an event description that is in a format that is human readable.

13. The method as defined in Claim 1, wherein the ID is the first portion of the entry.

14. The method as defined in Claim 1, wherein the ID is unique to the Web request with respect to other said Web requests.

15. A computer readable medium including machine readable instructions for implementing the method as defined in Claim 1.

16. A computer-readable medium having stored thereon computer-executable instructions for performing steps comprising:

servicing a Web request with a server from a Web application that is executing on the server, wherein during said servicing multiple logger streams are simultaneously active to log events as the Web request is being serviced by the server;

detecting the occurrence of each said event during the servicing of the Web request by the server; and

logging each said event as an entry in a trace log, wherein each said entry includes:

information descriptive of the occurrence of the event; and

an event ID corresponding to the event;

a Web request ID corresponding to the Web request.

17. The computer-readable medium as defined in Claim 16, wherein the step of logging further comprises determining which of the descriptive information to put into the entry as a function of a predetermined level of verbosity.

18. The computer-readable medium as defined in Claim 16, wherein the entry is logged in the trace log during the servicing of the Web request by the server only when the event is selected from the group consisting of:

- the event occurs within the context of a predetermined URL;
- the event pertains of the functionality of authentication;
- the event pertains of the functionality of security;
- the event pertains of the functionality of compression;
- the event pertains of the functionality of a CGI;
- the event pertains of the functionality of one or more filters; and
- the event is a predetermined event.

19. The computer-readable medium as defined in Claim 16, wherein the entry is logged in the trace log during the servicing of the Web request by the server only when the event pertains to a predetermined filter, wherein the information includes data going into the predetermined filter and data coming out of the predetermined filter.

20. The computer-readable medium as defined in Claim 16, wherein the steps further comprise at least one of:

- activating the logging when the logging is deactivated; and
- deactivating the logging when the logging is activated.

21. The computer-readable medium as defined in Claim 20, wherein the activating and the deactivating are performed remotely from the server.

22. The computer-readable medium as defined in Claim 20, wherein the trace log is in remote location from the server.

23. The computer-readable medium as defined in Claim 16, wherein at least one of the detecting and the logging are performed by one or more components of an operating system of the server.

24. The computer-readable medium as defined in Claim 23, wherein:
the operating system of the server includes one or more APIs; and
the Web application interfaces with at least one said API for the logging of each said Web application event as an entry in the trace log.

25. The computer-readable medium as defined in Claim 16, wherein at least one of the detecting and the logging are performed by one or more server applications that are executed by the server.

26. The computer-readable medium as defined in Claim 25, wherein:
the operating system of the server includes one or more APIs; and
the Web application interfaces with at least one said API for the logging of each said Web application event as an entry in the trace log.

27. The computer-readable medium as defined in Claim 16, wherein the step of logging of the entry in the trace log is in response to the detecting of the occurrence of the event in the servicing of the Web request.

28. The computer-readable medium as defined in Claim 16, where the steps further comprise generating a report containing at least a portion of the information in each said entry for which the Web request ID in the entry matches a supplied ID.

29. The computer-readable medium as defined in Claim 28, wherein:

each said entry is in a binary format; and

the generating of the report further comprises using the event ID to map the binary format of each said entry into an event description that is in a format that is human readable.

30. The computer-readable medium as defined in Claim 16, wherein the Web request ID is the first portion of the entry.

31. The computer-readable medium as defined in Claim 16, wherein the Web request ID is unique to the Web request with respect to other said Web requests.

32. A facility for tracing a Web request on a network, the facility comprising:

identifying means for identifying when a predetermined event occurs in a predetermined Web request when the predetermined Web request is being serviced; and

a logging means, in communication with the identifying means, for logging the event, wherein the log of the event includes:

a GUID corresponding to the predetermined Web request;

information descriptive of the occurrence of the predetermined event when the predetermined Web request is being serviced.

33. A network environment comprising a server servicing Web requests from a Web application while performing Web request-based tracing to produce traces that include a GUID for each Web request and to flow each GUID from the server across to the Web application.

34. The network environment as defined in Claim 33, further comprising multiple simultaneously active logger streams that are concurrently running on the server and that are each trace-enabled.

35. The network environment as defined in Claim 34, wherein the server returns each said trace from the multiple logger streams to a corresponding said trace-enabled Web application for which the Web request there from was serviced by the server.

36. A server module comprising:

- logic configured to service a Web request from a Web application;
- logic configured to detect an occurrence of an event in the servicing of the Web request; and
- logic configured to log an entry in a trace log, wherein the entry includes:
 - information descriptive of the occurrence of the event in the servicing of the Web request; and
 - an ID corresponding to the Web request.

37. The server module as defined in Claim 36, further comprising logic configured to determine which of the information that is descriptive of the occurrence of the event in the servicing of the Web request to put into the entry as a function of a predetermined level of verbosity.

38. The server module as defined in Claim 36, further comprising logic configured to limit the entries in the trace log that correspond to a predetermined said event that is selected from the group consisting of:

the event occurs within the context of a predetermined URL;

the event pertains of the functionality of authentication;

the event pertains of the functionality of security;

the event pertains of the functionality of compression;

the event pertains of the functionality of a CGI;

the event pertains of the functionality of one or more filters; and

the event is a predetermined event.

39. The server module as defined in Claim 36, wherein:

the entry is logged in the trace log during the servicing of the Web request only when the event pertains to a predetermined filter; and

the information includes data going into the predetermined filter and data coming out of the predetermined filter.

40. A computer readable medium including machine readable instructions for implementing each said logic of Claim 36.